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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/603,857	06/26/2000	William A. Skinner	FTI "AG"	4206
7590 05/18/2004			EXAMINER	
Delbert J Barnard Barnard & Pauly PS P O Box 58888 Seattle, WA 98138-1888			BLOUNT, STEVEN	
			ART UNIT	PAPER NUMBER
			2661	
			DATE MAILED: 05/18/2004	

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/603,857

Applicant(s)

SKINNER ET AL.

Examiner

Steven Blount

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/9/04 has been entered.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 33 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The examiner cannot find support for the fatigue life being increased by at least 200%.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 25 – 27, 30, 32, 33, 36, and 38 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,103,548 to Reid et al.

With respect to claim 25, Reid teaches, in col 4 lines 40+, inserting bushing 68 in opening 88 in the workpiece, and then inserting the sleeve 66 and mandrel 10 into the bushing/workpiece as shown in figure 5, and wherein it is also shown in figure 5 that the bushing and sleeve are closely insertable. This is followed by radial displacement of the sleeve resulting in substantially equal displacement of the bushing and sleeve, as is shown in figure 6, where the amount of displacement by the sleeve in the radial direction is substantially the same as the amount of displacement of the bushing 68. Although it is not explicitly taught that the bushing and sleeve are both metal members, In col 1 line 37, it is taught that metal is used for members such as these in similar processes; and, in view of the process taught and the shading of the members shown in the figures, one of ordinary skill in the art would recognize that it is obvious that processes such as these are meant to be carried out on metal members.

With respect to the following claims (hereinafter referred to as "CI"), note the following: CI 26: circular diameters (see figure 2); CI 27: member 84 is a structural member; CI 30: see figure 2; CI 32: see the rejection of claim 25, and note that fatigue is inherent in the process described in col 6, lines 63+; CI 33: having the fatigue life increased by at least 200% is a parametric result whose obtainable value would be obvious to one of ordinary skill in the art; CI 36: see figure 2; CI 38: see the rejection of claim 25, and note that plastic deformation is taught in col 4 line 60; CI 39: see figure 2; CI 40: see figure 2; CI 41: note the discussion of fatigue life above.

5. Claims 28, 29, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,103,548 to Reid et al as applied above, and further in view of U.S. patent 4,557,033 to Champoux.

With regard to claim 28, Reid et al teaches the invention as described above, but does not teach that the radial displacement is dependent on the modulus of elasticity and ultimate strength of the first and second bushings. Champoux teaches a similar process wherein it is noted that the choice of yield strength and modulus of elasticity provides varying critical fatigue expansion values. See col 14, lines 26+. It would have been obvious to one of ordinary skill in the art at the time of the invention to have chosen proper materials for the workpiece of Reid et al based upon ultimate strength and modulus of elasticity, in light of the teachings of Champoux, in order to produce a join between the bushing and workpiece of proper strength. Cl 29: see flanges being formed in figure 4; Cl 34: see discussion of modulus of elasticity above; Cl 35: see figure 4.

6. Claims 31 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,103,548 to Reid et al in view of U.S. patent 5,885,318 to Shimizu et al.

Reid teaches the invention as described above, but do not teach the bushings to have an elliptical profile; bushings with an elliptical profile are shown in figure 26C, wherein one of ordinary skill in the art at the time of the invention would have found it desirable to form the bushings of Reid et al into elliptical shapes in order to allow for the passage of different fluid processes.

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7. Claims 25 and 32 are rejected under 35 U.S.C. 103(a) as being obvious over European patent 891007 to Ganslein.

With regard to claim 25, Ganslein teaches the installation of bushings 3 and 5 as shown in figure 2, wherein a mandrel 11 is subsequently drawn through them. See line 22 of the translation, and also the action of member 11 in figure 3. Further note that Ganslein teaches "providing a second bushing, having a cylindrical section whose outside diameter corresponds approximately to the inside diameter of the first bushing" in lines 16 – 17. While the bushing is not defined to be made of metal, one of ordinary skill in the art would recognize that a "bushing of electrically conductive material" (see line 2 of the translation) is typically made of metal. With respect to claim 32, note the above, as well as the fact that increase in the fatigue life of the work member is inherent in the process taught in Ganslein.

8. Claim 38 is rejected under 35 U.S.C. 103(a) as being obvious over European patent 891007 to Ganslein as applied above, and further in view of U.S. patent 5,103,548 to Reid et al.

Ganslein teaches the invention as described above, but does not teach the bushing to be laterally plastically deformable. The plastic deformation of the bushings is, as discussed above, taught in Reid et al wherein it would have been obvious to one of ordinary skill in the art to have used a plastically deformable material for the bushings in Ganslein in light of the teachings of Reid to assure a proper join of the bushings together, as well as to the workpiece.

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***Response to Arguments***

9. Applicant's arguments filed 4/9/04 have been fully considered but they are not persuasive. Applicant has essentially argued that the bushings in Ganslein do not fit closely together, or that displacement occurs by an equal amount. With respect to the close fitting, see the passage quoted above in lines 16 – 17 of the translation. With respect to displacement occurring an equal amount, one of ordinary skill in the art observing figure 4 of Ganslein would recognize that the radial deformation in members 4 and 6 obtained from the drawing process would be equal or nearly so, in each member. The examiner would like to point out that the test for determining obviousness is set forth in *Graham v. John Deere*, as noted below.


The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The differences between the prior art and the claims at issue is what is crucial. Here, the examiner believes that these differences are insubstantial for the reasons noted above.

10. Examiner Blount may be reached at 703-305-0319 between the hours of 9:00 and 5:30 Monday through Friday.

SB 5/12/04

  
DOUGLAS OLMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600